AMENDMENTS TO THE CLAIMS

Please cancel claims 46-53 and 65-74 without prejudice or disclaimer, add claims 75-81, and amend claims 38-40, 42-45, and 55-64 as follows:

1. – 37. (Canceled).

38. (Currently Amended) A method for producing carbon nanowalls, comprising:

creating a plasma atmosphere in a plasma-generating area which is at least one region of a reaction chamber by plasmatizing a source material ~~containing~~ comprising carbon;

introducing radicals generated by decomposing a radical source in a radical-generating area, which is disposed in the reaction chamber and is located outside the plasma-generating area, ~~plasma atmosphere~~ into the plasma atmosphere; and

growing carbon nanowalls on a base material disposed in the reaction chamber.

39. (Currently Amended) The method according to claim 38, wherein the radicals are introduced in a direction perpendicular to a surface of the base material ~~generated by decomposing a radical source outside the reaction chamber~~.

40. (Currently Amended) The method according to claim [[39]] 38, wherein the radicals are generated by applying microwaves, UHF waves, VHF waves, or RF waves to the radical source and/or bringing the radical source in contact with a hot metal catalyst.

41. (Previously Presented) The method according to claim 38, wherein the radicals include hydrogen radicals.

42. (Currently Amended) The method according to claim [[38]] 41, wherein the hydrogen radicals are generated by decomposing [[a]] the radical source ~~containing hydrogen,~~ and are then introduced into the plasma atmosphere, the radical source comprising hydrogen.

43. (Currently Amended) The method according to claim 38, wherein the source material ~~contains~~ further comprises ~~carbon and~~ hydrogen.

44. (Currently Amended) The method according to claim 38, wherein the source material further comprises ~~contains carbon and~~ fluorine.

45. (Currently Amended) The method according to claim 38, wherein at least one of [[the]] a feed rate of the source material, [[the]] a plasmatization degree of the source material, and [[the]] a feed rate of the radicals is controlled ~~on the basis of the~~ based on a concentration of carbon radicals, hydrogen radicals, or fluorine radicals in the reaction chamber.

46. – 53. (Canceled).

54. (Previously Presented) The method according to claim 38, wherein the base material has no metal catalyst disposed thereon.

55. (Currently Amended) The method according to claim 38, wherein the source material ~~contains at least one of carbon,~~ further comprises hydrogen[[,]] and fluorine ~~that are~~ as essential components.

56. (Currently Amended) The method according to claim 43, wherein the source material [[is]] comprises CH_4.

57. (Currently Amended) The method according to claim 44, wherein the source material [[is]] comprises at least one compound selected from the group consisting of C_2F_6 and CF_4.

58. (Currently Amended) The method according to claim 55, wherein the source material [[is]] comprises CHF_3.

59. (Currently Amended) The method according to claim 38, wherein the source material is selected from the group consisting of:

a gas containing carbon and hydrogen;

a gas containing carbon and fluorine; and

a gas containing carbon, fluorine, and hydrogen, and

wherein the source material alternates between at least two of the gases ~~are alternately switched in any one of~~ during the [[steps]] growing of the carbon nanowalls.

60. (Currently Amended) The method according to claim 38, wherein the ~~introduced~~ radicals include no OH radicals.

61. (Currently Amended) The method according to claim 38, wherein [[the]] an amount of the ~~introduced~~ radicals in the at least one region is measured, and

wherein at least one of [[the]] a feed rate of the source material and [[the]] a feed rate of the radicals is controlled on [[the]] a basis of the ~~radical~~ amount of the radicals.

62. (Currently Amended) The method according to claim 38, wherein ~~properties of~~ the carbon nanowalls are grown ~~varied~~ by varying [[the]] a ratio of [[the]] a feed rate of [[a]] the source material ~~containing carbon and~~ further comprising fluorine ~~and that~~ a feed rate of ~~another~~ the source material ~~containing~~ further comprising ~~carbon and~~ hydrogen.

63. (Currently Amended) The method according to claim 38, wherein the carbon nanowalls are oriented by tilting a line normal to the base material with respect to [[the]] a direction of an electric field.

64. (Currently Amended) The method according to claim 38, further comprising:

pretreating the base material by applying the radicals to the base material without plasmatizing the source material before the ~~growth~~ growing of the carbon nanowalls.

65. – 74. (Canceled).

75. (New) A method for producing carbon nanowalls, comprising:

creating a plasma atmosphere in at least one region of a reaction chamber by plasmatizing a source material which comprises at least one compound selected from the group consisting of CH_4, CF_4, and CHF_3;

introducing radicals generated outside the plasma atmosphere into the plasma atmosphere; and

growing carbon nanowalls on a base material disposed in the reaction chamber.

76. (New) A method for producing carbon nanowalls, comprising:

creating a plasma atmosphere in at least one region of a reaction chamber by plasmatizing a source material comprising at least carbon;

introducing radicals generated outside the plasma atmosphere into the plasma atmosphere; and

growing carbon nanowalls on a base material disposed in the reaction chamber by varying a ratio of a feed rate of the source material further comprising fluorine to a feed rate of the source material further comprising hydrogen.

77. (New) A method for producing carbon nanowalls, comprising:

creating a plasma atmosphere in at least one region of a reaction chamber by plasmatizing a source material comprising carbon, hydrogen, and fluorine as essential components;

introducing radicals generated outside the plasma atmosphere into the plasma atmosphere; and

growing carbon nanowalls on a base material disposed in the reaction chamber.

78. (New) A method for producing carbon nanowalls, comprising:

creating a plasma atmosphere in at least one region of a reaction chamber by plasmatizing a source material comprising carbon;

introducing radicals generated outside the plasma atmosphere into the plasma atmosphere; and

growing carbon nanowalls on a base material disposed in the reaction chamber,

wherein the source material is selected from the group consisting of:

a gas containing carbon and hydrogen;

a gas containing carbon and fluorine; and

a gas containing carbon, fluorine, and hydrogen, and

wherein the source material alternates between at least two of the gases during the growing of the carbon nanowalls.

79. (New) A method for producing carbon nanowalls, comprising:

creating a plasma atmosphere in at least one region of a reaction chamber by plasmatizing a source material comprising carbon;

introducing hydrogen radicals into the plasma atmosphere, the hydrogen radicals not including OH radicals or O radicals and being generated outside the plasma atmosphere; and

growing carbon nanowalls on a base material disposed in the reaction chamber.

80. (New) A method for producing carbon nanowalls, comprising:

creating a plasma atmosphere in at least one region of a reaction chamber by plasmatizing a source material comprising carbon;

introducing radicals generated outside the plasma atmosphere into the plasma atmosphere; and

growing carbon nanowalls on a base material disposed in the reaction chamber,

wherein the carbon nanowalls are oriented by tilting a line normal to the base material with respect to a direction of an electric field.

81. (New) A method for producing carbon nanowalls, comprising:

creating a plasma atmosphere in at least one region of a reaction chamber by plasmatizing a source material comprising carbon;

introducing radicals generated outside the plasma atmosphere into the plasma atmosphere;

growing carbon nanowalls on a base material disposed in the reaction chamber; and

pretreating the base material by applying the radicals to the base material without plasmatizing the source material before the growing of the carbon nanowalls.